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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/653,336	08/31/2000	Kenichi Takekawa	196124US2	4688

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EXAMINER	
SHAPIRO, LEONID	

ART UNIT	PAPER NUMBER
2677	

DATE MAILED: 12/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/653,336	TAKEKAWA ET AL.	
	Examiner	Art Unit	
	Leonid Shapiro	2677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 September 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-24 and 27-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-24, 27-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakazawa et al. (US Patent No. 6,492,633) in view of Flowers et al. (US Patent No. 4,918,262).

As to claim 21, Nakazawa et al. teaches a coordinate input-detecting apparatus including a touch panel to be touched by a pointer, coordinate input-detecting apparatus (Col. 1, Lines 7-10) comprising:

a substantially flat two-dimensional coordinate input-detecting area configured to receive insertion of the pointer, substantially flat two-dimensional coordinate input-detecting area being formed in front of the touch panel and having a prescribed depth (See Fig. 1-2, items 10, S, Col. 4, Lines 30-38);

an optical unit, configured optically detect the pointer inserted into the coordinate input detecting area and to generate a detection signal based on the detection (See Fig. 1, items 1a, 1b, 3a, 3b, 10, S, Col. 4, Lines 39-63); and

a controller configured to calculate coordinates designated by the pointer in accordance with detection signal (See Fig. 3, item 5 and Fig. 9, items 1a, 1b, P, from Col. 10, Line 55 to Col. 11, Line 40);

wherein controller calculates the coordinates based on detection signal exceeding a second threshold value (See Fig. 4, items 5, 32a-35a, Ref and Fig. 6, item Ref), the second threshold value (in the reference is equivalent to Ref) being changed in accordance with a distance between the pointer and the optical unit (in the reference decreases with elapse time (scanning angle becomes smaller) from the start operation is equivalent to the distance) (See Fig. 7, item Ref, Col. 9, Lines 51-53),

and wherein a lowest level of second threshold value enables detection of the pointer at a farthest point from the optical unit (See Figs. 6(a), 7(b), items Q00, Ref, OUTPUT SIGNAL, Col. 9, Lines 36-45).

Nakazawa et al. does not show optical unit recognize insertion of the pointer when detection signal exceeds a first predetermined threshold value, allowing a coordinate calculation operation.

Flowers et al. teaches optical unit recognize insertion of the pointer when detection signal exceeds a first predetermined threshold value (See Fig. 5, item 1, Col. 8, Lines 7-16), allowing a coordinate calculation operation (See Fig. 5, item A, Col. 8, Lines 16-19 and Fig. 2, item 23).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Flowers et al. into Nakazawa et al. system in order to utilize plural thresholds for tracking (see Col. 2, Lines 55-58 in the Flowers et al. reference).

As to claim 22, Nakazawa et al. teaches the detection signal exceeds the second threshold value when the pointer almost contacts the touch panel (See Fig. 7, items Ref, Q00, Col. 10, Lines 6-12).

As to claims 23-24, Nakazawa et al. teaches the second threshold unit (in the reference is equivalent to Ref) is determined in accordance with a distance between the pointer and the optical unit (in the reference decreases with elapse time (scanning angle becomes smaller) from the start operation is equivalent to the distance) (See Fig. 7, item Ref, Col. 9, Lines 51-53).

2. Claims 27-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakazawa et al. and Flowers et al. as aforementioned to claims 21-24 above and in view Fumihiko et al. (JP No.09319501 A).

As to claim 27-30, Nakazawa et al. and Flowers et al. do not teach about first and second optical devices each having a light source and a light acceptance unit, wherein the second threshold value is set and used in comparing with detection signals generated by a the first and second optical units.

Fumihiko et al. shows two optical units installed in adjacent corners (See Drawing 1, items 1-3, k1. k2 and Detailed description, 0007).

It would have been obvious to one having ordinary skill in the art at the time of the invention to use first and second optical units, as shown by Fumihiko et al. Nakazawa et al. and Flowers et al. device to provide a miniaturized high-reliability detector of simple configuration (See Problem to be solved in Fumihiko et al. reference).

As to claim 31-34, Nakazawa et al. teaches optical units include reflection mirrors each disposed on prescribed sides of the coordinate input-detecting area, reflection mirrors having surfaces whose every portions return light beam to the light source (See Fig. 1, item 7, Col. 4, Line 39-51).

Nakazawa et al. and Flowers et al. do not show optical units being disposed at corners on the coordinate input detecting area.

Fumihiko et al. teaches optical units being disposed at corners on the coordinate input detecting area (See Drawing 1, items 1-3, k1. k2 and Detailed description, 0007).

It would have been obvious to one having ordinary skill in the art at the time of the invention to use optical units being disposed at corners on the coordinate input detecting area, as shown by Fumihiko et al. in Nakazawa et al. and Flowers et al. device to provide a miniaturized high-reliability detector of simple configuration (See Problem to be solved in Fumihiko et al. reference).

As to claims 35-38, Nakazawa et al. teaches optical unit further includes a probe light generating device configured to generate and swing and irradiate probe lights toward the reflection mirrors (See Fig. 2, items 11a, 11b, from Col. 4, Line 61 to Col. 5, Line 13).

Response to Amendment

3. Applicant's arguments filed on 09.23.05 have been fully considered but they are not persuasive:

On page 3, 1st paragraph Applicant's stated that in Sato the discrimination threshold value of the level discriminator is not used to calculate coordinates of inserted pointer, but instead is used to change a drive level of a pointer. However, in claimed invention according to claim 1: "the second threshold value being changed in accordance with a distance between the pointer and the optical unit", which is equivalent to the change a drive level of a pointer (pen) in Sato reference. In both cases above change done in order to consider the attenuation of the detection level (See Col. 2, Lines 56-59 in the Sato reference).

On page 4, 2nd paragraph Applicant's stated that in Sato the term "distance" is actually a time and is not a physical distance and further in paragraph 3 mentioned "time lapse". However, Sato stated: "In accordance with both delay **times**, a **distance** between the input pen and each sensor calculated" (See Col. 5, Lines 17-19).

Conclusion

4. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Telephone inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 571-272-7683. The examiner can normally be reached on 8 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on 571-272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LS
12.09.05

AMR A. AWAD
PRIMARY EXAMINER